

SEQUENCE LISTING

<110> Yissum Research Development Company of the Hebrew University of Jerusalem Ben-Gurion University of the Negev Research and Development Authority
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PORGADOR, Angel

<120> PEPTIDES DERIVED FROM NATURAL CYTOTOXICITY RECEPTORS AND METHODS OF USE THEREOF

<130> NAP/003/PCT

<140> PCT/IL2004

<141> 2004-11-24

<150> US 60/524,648

<151> 2003-11-25

<160> 30

<170> PatentIn version 3.3

<210> 1

<211> 23

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1)..(23)

<223> amino acid residues 153-175 of human NKp46

<400> 1

Phe Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr
1 5 10 15

Gly Lys Val Gln Ala Glu Phe
20

<210> 2

<211> 20

<212> PRT

<213> homo sapiens

<220>

<221> PEPTIDE

<222> (1)..(20)

<223> aa 153-172 of NKp46 (SEQ ID NO:5 herein)

<220>

<221> PEPTIDE

<222> (1)..(20)

<223> aa residues 153-172 of human NKp46 (SEQ ID NO:5 herein)

<400> 2

Phe Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr
1 5 10 15

Gly Lys Val Gln

20

<210> 3
<211> 28
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(28)
<223> derived from NKp30 amino acids 56-83

<220>
<221> PEPTIDE
<222> (1)..(28)
<223> amino acid residues 57-84 derived from human NKp30

<400> 3

Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg Asn Gly Thr Pro Glu
1 5 10 15

Phe Arg Gly Arg Leu Ala Pro Leu Ala Ser Ser Arg
20 25

<210> 4
<211> 20
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(20)
<223> corresponds to amino acids 56-75 of NKp30

<220>
<221> PEPTIDE
<222> (1)..(20)
<223> amino acids residues 57-76 of human NKp30

<400> 4

Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg Asn Gly Thr Pro Glu
1 5 10 15

Phe Arg Gly Arg
20

<210> 5
<211> 24
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> amino acids 61-80 of NKp44

<220>
<221> PEPTIDE

<222> (1)..(24)
<223> amino acid residues 51-74 of human NKp44

<400> 5

Lys Lys Gly Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu
1 5 10 15
Val Thr Ser Ser Lys Pro Arg Thr
20

<210> 6
<211> 304
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAA04714
<309> 1998-09-22
<313> (1)..(304)

<400> 6

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys
65 70 75 80

Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
85 90 95

Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
100 105 110

Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
115 120 125

His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
130 135 140

Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
145 150 155 160

Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
165 170 175

Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
 180 185 190

Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
 195 200 205

Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
 210 215 220

Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu Thr
 225 230 235 240

Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu
 245 250 255

Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe
 260 265 270

Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser
 275 280 285

Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
 290 295 300

<210> 7
 <211> 287
 <212> PRT
 <213> homo sapiens

<300>
 <308> NCBI/CAA06872
 <309> 1998-09-22
 <313> (1)..(287)

<400> 7

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
 1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
 20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
 35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
 50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys
 65 70 75 80

Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
 85 90 95

Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
100 105 110

Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
115 120 125

His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
130 135 140

Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
145 150 155 160

Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
165 170 175

Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
180 185 190

Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
195 200 205

Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
210 215 220

Thr Phe Pro Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu Leu
225 230 235 240

Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe Leu
245 250 255

Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser Arg
260 265 270

Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
275 280 285

<210> 8
<211> 209
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAA06873
<309> 1998-09-22
<313> (1)..(209)

<400> 8

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Met Tyr Asp Thr Pro Thr Leu Ser
20 25 30

Val His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr
35 40 45

Cys Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly
50 55 60

Arg Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe
65 70 75 80

Pro Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe
85 90 95

Gly Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys
100 105 110

Leu Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp
115 120 125

Pro Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu
130 135 140

Thr Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asn
145 150 155 160

Leu Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp
165 170 175

Phe Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala
180 185 190

Ser Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr
195 200 205

Leu

<210> 9
<211> 192
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAA06874
<309> 1998-09-22
<313> (1)..(192)

<400> 9

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Met Tyr Asp Thr Pro Thr Leu Ser
20 25 30

Val His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr
35 40 45

Cys Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly
50 55 60

Arg Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe
65 70 75 80

Pro Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe
85 90 95

Gly Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys
100 105 110

Leu Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp
115 120 125

Pro Thr Phe Pro Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu
130 135 140

Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe
145 150 155 160

Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser
165 170 175

Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
180 185 190

<210> 10
<211> 488

<212> PRT

<213> artificial

<220>
<223> conjugate of leader peptide, D1 and D2 domains of NKp46 with Fc domain

<400> 10

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Pro Lys Pro Pro Glu Arg Ile Asn Lys
65 70 75 80

Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
85 90 95

Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
100 105 110

Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
115 120 125

His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
130 135 140

Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
145 150 155 160

Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
165 170 175

Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
180 185 190

Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
195 200 205

Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
210 215 220

Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu Thr
225 230 235 240

Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asp Pro
245 250 255

Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
260 265 270

Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
275 280 285

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
290 295 300

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305 310 315 320

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
325 330 335

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 340 345 350

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 355 360 365

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 370 375 380

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
 385 390 395 400

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 405 410 415

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 420 425 430

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 435 440 445

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 450 455 460

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 465 470 475 480

Ser Leu Ser Leu Ser Pro Gly Lys
 485

<210> 11
 <211> 364
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of CD5 leader peptide and D1 of NKp46 with Fc domain

<400> 11

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30

Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp Ala Glu Pro His Phe Met
 35 40 45

Val Pro Lys Glu Lys Gln Val Thr Ile Cys Cys Gln Gly Asn Tyr Gly
 50 55 60

Ala Val Glu Tyr Gln Leu His Phe Glu Gly Ser Leu Phe Ala Val Asp
 65 70 75 80

Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys Val Lys Phe Tyr Ile Pro
85 90 95

Asp Met Asn Ser Arg Met Ala Gly Gln Tyr Ser Cys Ile Tyr Arg Val
100 105 110

Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu Leu Asp Leu Val Val Thr
115 120 125

Glu Met Asp Pro Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro
130 135 140

Pro Cys Pro Ala Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe
145 150 155 160

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
165 170 175

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
180 185 190

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
195 200 205

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
210 215 220

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
225 230 235 240

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
245 250 255

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
260 265 270

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
275 280 285

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
290 295 300

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
305 310 315 320

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
325 330 335

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
340 345 350

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
355 360

<210> 12
<211> 393
<212> PRT
<213> artificial

<220>
<223> conjugate of CD5 leader peptide and D2 domain of NKp46 with FC domain

<400> 12

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
50 55 60

Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr Gly
65 70 75 80

Lys Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
130 135 140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp Asp
145 150 155 160

Pro Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro
165 170 175

Ala Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys
180 185 190

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
195 200 205

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
210 215 220

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
225 230 235 240

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
245 250 255

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
260 265 270

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
275 280 285

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
290 295 300

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
305 310 315 320

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
325 330 335

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
340 345 350

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
355 360 365

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
370 375 380

Lys Ser Leu Ser Leu Ser Pro Gly Lys
385 390

<210> 13
<211> 201
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/AAH52582
<309> 2004-06-30
<313> (1)..(201)

<400> 13

Met Ala Trp Met Leu Leu Leu Ile Leu Ile Met Val His Pro Gly Ser
1 5 10 15

Cys Ala Leu Trp Val Ser Gln Pro Pro Glu Ile Arg Thr Leu Glu Gly
20 25 30

Ser Ser Ala Phe Leu Pro Cys Ser Phe Asn Ala Ser Gln Gly Arg Leu
35 40 45

Ala Ile Gly Ser Val Thr Trp Phe Arg Asp Glu Val Val Pro Gly Lys
50 55 60

Glu Val Arg Asn Gly Thr Pro Glu Phe Arg Gly Arg Leu Ala Pro Leu
65 70 75 80

Ala Ser Ser Arg Phe Leu His Asp His Gln Ala Glu Leu His Ile Arg
85 90 95

Asp Val Arg Gly His Asp Ala Ser Ile Tyr Val Cys Arg Val Glu Val
100 105 110

Leu Gly Leu Gly Val Gly Thr Gly Asn Gly Thr Arg Leu Val Val Glu
115 120 125

Lys Glu His Pro Gln Leu Gly Ala Gly Thr Val Leu Leu Leu Arg Ala
130 135 140

Gly Phe Tyr Ala Val Ser Phe Leu Ser Val Ala Val Gly Ser Thr Val
145 150 155 160

Tyr Tyr Gln Gly Lys Cys Leu Thr Trp Lys Gly Pro Arg Arg Gln Leu
165 170 175

Pro Ala Val Val Pro Ala Pro Leu Pro Pro Pro Cys Gly Ser Ser Ala
180 185 190

His Leu Leu Pro Pro Val Pro Gly Gly
195 200

<210> 14

<211> 382

<212> PRT

<213> artificial

<220>

<223> conjugate of CD5 leader peptide and D (Ig-like)domain of NKp30
with Fc domain

<400> 14

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Leu
20 25 30

Trp Val Ser Gln Pro Leu Glu Ile Arg Thr Leu Glu Gly Ser Ser Ala
35 40 45

Phe Leu Pro Cys Ser Phe Asn Ala Ser Gln Gly Arg Leu Ala Ile Gly
50 55 60

Ser Val Thr Trp Phe Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg
65 70 75 80

Asn Gly Thr Pro Glu Phe Arg Gly Arg Leu Ala Pro Leu Ala Ser Ser
85 90 95

Arg Phe Leu His Asp His Gln Ala Glu Leu His Ile Arg Asp Val Arg
100 105 110

Gly His Asp Ala Ser Ile Tyr Val Cys Arg Val Glu Val Leu Gly Leu
115 120 125

Gly Val Gly Thr Gly Asn Gly Thr Arg Leu Val Val Glu Lys Glu His
130 135 140

Pro Gln Leu Gly Asp Pro Glu Pro Lys Ser Ser Asp Lys Thr His Thr
145 150 155 160

Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly Ala Pro Ser Val Phe
165 170 175

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
180 185 190

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
195 200 205

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
210 215 220

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
225 230 235 240

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
245 250 255

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
260 265 270

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
275 280 285

Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
290 295 300

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
305 310 315 320

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 325 330 335

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 340 345 350

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 355 360 365

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 370 375 380

<210> 15
 <211> 276
 <212> PRT
 <213> homo sapiens

<300>
 <308> NCBI/CAB39168
 <309> 1999-03-15
 <313> (1)..(276)

<400> 15

Met Ala Trp Arg Ala Leu His Pro Leu Leu Leu Leu Leu Phe
 1 5 10 15

Pro Gly Ser Gln Ala Gln Ser Lys Ala Gln Val Leu Gln Ser Val Ala
 20 25 30

Gly Gln Thr Leu Thr Val Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu
 35 40 45

Tyr Glu Lys Lys Gly Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile
 50 55 60

Arg Leu Val Thr Ser Ser Lys Pro Arg Thr Met Ala Trp Thr Ser Arg
 65 70 75 80

Phe Thr Ile Trp Asp Asp Pro Asp Ala Gly Phe Phe Thr Val Thr Met
 85 90 95

Thr Asp Leu Arg Glu Glu Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr
 100 105 110

Arg Pro Ser Asp Asn Ser Val Ser Lys Ser Val Arg Phe Tyr Leu Val
 115 120 125

Val Ser Pro Ala Ser Ala Ser Thr Gln Thr Pro Trp Thr Pro Arg Asp
 130 135 140

Leu Val Ser Ser Gln Thr Gln Thr Gln Ser Cys Val Pro Pro Thr Ala
 145 150 155 160

Gly Ala Arg Gln Ala Pro Glu Ser Pro Ser Thr Ile Pro Val Pro Ser
 165 170 175

Gln Pro Gln Asn Ser Thr Leu Arg Pro Gly Pro Ala Ala Pro Ile Ala
 180 185 190

Leu Val Pro Val Phe Cys Gly Leu Leu Val Ala Lys Ser Leu Val Leu
 195 200 205

Ser Ala Leu Leu Val Trp Trp Gly Asp Ile Trp Trp Lys Thr Val Met
 210 215 220

Glu Leu Arg Ser Leu Asp Thr Gln Lys Ala Thr Cys His Leu Gln Gln
 225 230 235 240

Val Thr Asp Leu Pro Trp Thr Ser Val Ser Ser Pro Val Glu Arg Glu
 245 250 255

Ile Leu Tyr His Thr Val Ala Arg Thr Lys Ile Ser Asp Asp Asp Asp
 260 265 270

Glu His Thr Leu
 275

<210> 16
 <211> 434

<212> PRT

<213> artificial

<220>

<223> conjugate of leader peptide, DS and DL domains of Nkp44 with Fc domain

<400> 16

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30

Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln Thr Leu Thr Val
 35 40 45

Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu Lys Lys Gly Trp
 50 55 60

Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu Val Thr Ser Ser
 65 70 75 80

Lys Pro Arg Thr Val Ala Trp Thr Ser Arg Phe Thr Ile Trp Asp Asp
 85 90 95

Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp Leu Arg Glu Glu
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100

105

110

Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr Arg Pro Ser Asp Asn Ser
 115 120 125

Val Ser Lys Ser Val Arg Phe Tyr Leu Val Val Ser Pro Ala Ser Ala
 130 135 140

Ser Thr Gln Thr Ser Trp Thr Pro Arg Asp Leu Val Ser Ser Gln Thr
 145 150 155 160

Gln Thr Gln Ser Cys Val Pro Pro Thr Ala Gly Ala Arg Gln Ala Pro
 165 170 175

Glu Ser Pro Ser Thr Ile Pro Val Pro Ser Gln Pro Gln Asn Ser Thr
 180 185 190

Leu Arg Pro Gly Pro Ala Ala Pro Asp Pro Glu Pro Lys Ser Ser Asp
 195 200 205

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly Ala
 210 215 220

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 225 230 235 240

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 245 250 255

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 260 265 270

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 275 280 285

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 290 295 300

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 305 310 315 320

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 325 330 335

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 340 345 350

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 355 360 365

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
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370

375

380

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 385 390 395 400

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 405 410 415

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 420 425 430

Gly Lys

<210> 17
 <211> 326

<212> PRT

<213> artificial

<220>
 <223> conjugate of CD5 leader peptide and DS domain of NKP44 with Fc domain

<400> 17

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Ser
 20 25 30

Pro Ala Ser Ala Ser Thr Gln Thr Ser Trp Thr Pro Arg Asp Leu Val
 35 40 45

Ser Ser Gln Thr Gln Thr Gln Ser Cys Val Pro Pro Thr Ala Gly Ala
 50 55 60

Arg Gln Ala Pro Glu Ser Pro Ser Thr Ile Pro Val Pro Ser Gln Pro
 65 70 75 80

Gln Asn Ser Thr Leu Arg Pro Gly Pro Ala Ala Pro Asp Pro Glu Pro
 85 90 95

Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
 100 105 110

Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 130 135 140

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
 145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
 165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
 225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320

Ser Leu Ser Pro Gly Lys
 325

<210> 18

<211> 376

<212> PRT

<213> artificial

<220>
 <223> conjugate of leader peptide, and DL domain of Nkp44 with Fc domain

<400> 18

Met Gly Met Pro Met Gly Ser Phe Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30

Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln Thr Leu Thr Val
 35 40 45

Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu Lys Lys Gly Trp
50 55 60

Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu Val Thr Ser Ser
65 70 75 80

Lys Pro Arg Thr Val Ala Trp Thr Ser Arg Phe Thr Ile Trp Asp Asp
85 90 95

Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp Leu Arg Glu Glu
100 105 110

Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr Arg Pro Ser Asp Asn Ser
115 120 125

Val Ser Lys Ser Val Arg Phe Tyr Leu Val Val Ser Pro Ala Asp Pro
130 135 140

Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
145 150 155 160

Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
165 170 175

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
180 185 190

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
195 200 205

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
210 215 220

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
225 230 235 240

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
245 250 255

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
260 265 270

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
275 280 285

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
290 295 300

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
305 310 315 320

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 325 330 335

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 340 345 350

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 355 360 365

Ser Leu Ser Leu Ser Pro Gly Lys
 370 375

<210> 19
 <211> 914
 <212> DNA
 <213> homo sapiens

<300>
 <308> NCBI/AJ001383
 <309> 1998-09-22
 <313> (1)..(914)

<400> 19
 tgtcttccac actccctgcc ctgctctgcg tcgggctgtg tctgagtca aggatcagcg 60
 cccagcagca gactctccca aaaccgttca tctggccga gccccatttc atggttccaa 120
 agaaaaagca agtgaccatc ttttgccagg gaaattatgg ggctgttcaa taccagctgc 180
 actttgaagg aagccctttt gccgtggaca gacccaaacc ccctgagcgg attaacaag 240
 tcaaattcta catcccgac atgaactccc gcatggcagg gcaatacagc tgcatactac 300
 gggttgggga gctctggta gagccagca acttgctgga tctggtgta acagaaatgt 360
 atgacacacc caccctctcg gttcatcctg gaccgaagt gatctcgaa gagaaggta 420
 cttctactg ccgtcttagac actgcaacaa gcatgttctt actgctcaag gaggaaagat 480
 ccagccacgt acagcgcgga tacggaaagg tccaggcgg gttccctgtga 540
 ccacagccca cggaggaca taccgatgtt ttggctccta taacaaccat gcctggtctt 600
 tccccagtga gccagtgaag ctccctggta caggcgacat tgagaacacc agccttgac 660
 ctgaagaccc caccttcct gcagacactt gggcaccta ctttaacc acagagacgg 720
 gactccagaa agaccatgcc ctctggatc acactgccc gaatctcctt cggatgggcc 780
 tggcctttct agtcctggtg gctctagtgt gttctgtgt tgaagactgg ctcagcagga 840
 agaggactag agagcgagcc agcagagctt ccactggaa aggaggaga aggctgaaca 900
 cacagactct ttga 914

<210> 20
 <211> 1506
 <212> DNA
 <213> artificial

<220>
 <223> DNA sequence of conjugate of leader peptide, D1 AND D2 domains of NKp46 with Fc domain (SEQ ID NO:9)

<400> 20
tccccactgc tcagcactta ggccggcaga atctgagcga tgtcttccac actccctgcc 60
ctgctctgcg tcgggctgtg tctgagtcag aggatcagcg cccagcagca gactctccca 120
aaaccgttca tctgggccga gccccatttc atggttccaa aggaaaagca agtgaccatc 180
tgttgcagg gaaattatgg ggctgttcaa taccagctgc actttgaagg aagcctttt 240
gccgtggaca gacaaaacc ccctgagcgg attaacaag tcaaattcta catcccgac 300
atgaactccc gcatggcagg gcaatacagc tgcatctatc gggttgggaa gctctggta 360
gagcccagca acttgcttga tctgggttga acagaaatgt atgacacacc caccctctcg 420
gttcatcctg gacccgaagt gatctcgggaa gagaaggta cttctactg ccgtctagac 480
actgcaacaa gcatgttctt actgctcaag gagggaaatgtt ccagccacgt acagcgcgga 540
tacgggaagg tccaggcggaa gttccccctg ggccctgtga ccacagccca ccgagggaca 600
taccgatgtt ttggctccta taacaaccat gcctggtctt tccccagtga gccagtgaag 660
ctcctggta caggcgacat tgagaacacc agccttgcac ctgaagaccc cacccttc 720
gcagacactt ggggcaccta ctttttaacc acagagacgg gactccagaa agaccatgcc 780
ctctgggatc acactgcccggag cccaaatctt ctgacaaaac tcacacatgc 840
ccaccgtgcc cagcacctga attcgagggt gcaccgtcag tttccctt ccccccaaaa 900
cccaaggaca ccctcatgat ctcccgacc cctgaggta catgcgttgtt ggtggacgtg 960
agccacgaag accctgaggt caagttcaac tggtagtgg acggcgttga ggtgcataat 1020
gccaagacaa agccgcgggaa ggagcagtac aacagcacgt accgtgttgtt cagcgtcctc 1080
accgtcctgc accaggactg gctgaatggc aaggagtaca agtgcacggt ctccaacaaa 1140
gccctccag ccccatcgaa gaaaaccatc tccaaagcca aagggcagcc ccgagagcca 1200
caggtgtaca ccctggggat gagctgacca agaaccaggta cagcctgacc 1260
tgcctggta aaggcttcta tcccgacatcgttgtt agtggagag caatggcag 1320
ccggagaaca actacaagac caccgcctccc gtgctggact ccgacggctc cttttccctc 1380
tacagcaagc tcaccgttga caagagcagg tggcagcagg ggaacgttta ctcatgctcc 1440
gtgatgcatttggctctgca caaccactac acgcagaaga gccttcctt gtctccgggt 1500
aaatga 1506

<210> 21
<211> 1110
<212> DNA
<213> artificial

<220>
<223> DNA encoding conjugate of CD5 leader peptide and D1 domain of NKP46 with Fc domain (SEQ ID NO:10)

<400> 21
aagcttgcgg ccaccatggg aatgcccatttgc aaccgcgttgc caccctgtac 60
ctgctggggaa tgctggtcgc ttccctgcctc ggacggctca gggtacccca gcagcagact 120

ctcccaaaac cgttcatctg ggccgagccc catttcatgg ttccaaagga aaagcaagtg	180
accatctgtt gccagggaaa ttatggggct gttgaatacc agctgcactt tgaaggaagc	240
cttttgcgc tggacagacc aaaacccct gagcggatta acaaagtcaa attctacatc	300
ccggacatga actcccgcat ggcagggcaa tacagctgca tctatcggt tggggagctc	360
tggtcagagc ccagcaactt gctggatctg gtggtaacag aaatggatcc ggagccaaa	420
tcttctgaca aaactcacac atgcccaccc tgcccagcac ctgaattcga gggtgtcaccg	480
tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctccc gaccctgag	540
gtcacatgcg tggtggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtag	600
gtggacggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gtacaacagc	660
acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa tggcaaggag	720
tacaagtgca aggtctccaa caaagccctc ccagccccca tcgagaaaac catctccaaa	780
gccaaaggc agccccgaga gccacaggtg tacaccctgc ccccatccc ggatgagctg	840
accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctatcccag cgacatcgcc	900
gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tccctgtctg	960
gactccgacg gctccttctt cctctacagc aagctcaccg tggacaagag caggtggcag	1020
caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacgcag	1080
aagagcctct ccctgtctcc gggtaaatga	1110

<210> 22
 <211> 1197
 <212> DNA
 <213> artificial

<220>
 <223> DNA encoding conjugate of leader peptide and D2 domain of NKP46 with Fc domain (SEQ ID NO:12)

<400> 22	
aagcttgcgg ccaccatggg aatgcccattt gggctctctgc aaccgcgtggc caccttgc	60
ctgctgggaa tgctggctgc ttccctgcctc ggacggctca gggtacccta tgacacaccc	120
accctctcggtt ttcattctgg acccgaggtg atctcggtgg agaagggtgac cttctactgc	180
cgtctagaca ctgcaacaag catgttctta ctgctcaagg agggaaagatc cagccacgtt	240
cagcgcggat acgggaaggtt ccaggcggag ttcccccgtt gcccgtgttgc acacgcccac	300
cgagggacat accgatgttt tggctccttat aacaaccatg cctggctttt ccccaagttag	360
ccagtgaagc tcctggtcac aggcacattt gagaacacca gccttgcacc tgaagacccc	420
acctttccttgc acacttgggg cacctacctt ttaaccacag agacggactt ccagaaagac	480
catgccccttgc gggatccggaa gccccaaatct tctgacaaaaa ctcacacatg cccaccgtgc	540
ccagcacctg aattcgaggg tgccaccgtca gtcttccttgc tccccccaaa acccaaggac	600
accctcatga tctcccgac ccctgaggc acatgcgtgg tggtgacgtt gagccacgaa	660

gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	720
aagccgcggg aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg	780
caccaggact ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca	840
gcccccatcg agaaaaccat ctccaaagcc aaagggcagc cccgagagcc acaggtgtac	900
accctgcccc catcccgga ttagctgacc aagaaccagg tcagcctgac ctgcctggtc	960
aaaggcttct atcccagcga catcgccgtg gagtggaga gcaatggca gccggagaac	1020
aactacaaga ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag	1080
ctcaccgtgg acaagagcag gtggcagcag gggAACGTCT tctcatgctc cgtgatgcat	1140
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaatga	1197

<210> 23
<211> 606
<212> DNA
<213> homo sapiens

<300>
<308> NCBI/BC052582
<309> 2004-06-30
<313> (1)..(606)

<400> 23 atggcctgga tgctgttgc catcttgcatt atggccatc caggatcctg tgctctctgg	60
gtgtcccagc cccctgagat tcgttacccctg gaaggatcct ctgccttcct gcccgtctcc	120
ttcaatgcca gccaagggag actggccatt ggctccgtca cgtggttccg agatgaggtg	180
gttccaggga aggaggtgag gaatggaacc ccagagttca ggggcccctt gccccactt	240
gcttcttcctt gtttcctcca tgaccaccag gctgagctgc acatccggaa cgtgcgaggc	300
catgacgcca gcatctacgt gtgcagagtg gaggtgctgg gccttgggt tacagtcctc	360
aatgggactc ggctgggtgt ggagaaagaa catcctcagc tagggctgg tacagtcctc	420
ctccttcggg ctggattcta tgctgtcagc tttctctctg tggccgtggg cagcaccgtc	480
tattaccagg gcaaagtct gacctggaaa ggtccaagaa ggcagctgcc ggctgtggtc	540
ccagcgcccc tcccaccacc atgtgggagc tcagcacatc tgcttcccc agtcccagga	600
ggctga	606

<210> 24
<211> 1164
<212> DNA
<213> artificial

<220>
<223> DNA encoding conjugate of CD5 Leader peptide, D1 and D2 domains of NKp30 with Fc domain (SEQ ID NO:13)

<400> 24 aagcttgcgg ccaccatggg aatgcccattt gggctcttgc aaccgctggc caccttgcac	60
ctgctggggaa tgctggtcgc ttccctgcctc ggacggctca gggtaaccctt ctgggtgtcc	120
cagcccccttgg agattcgtac cctggaaaggg tcttctgcctt tcctgccttgc ctcccttcaat	180

gccagccaag ggagactggc cattggctcc gtcacgtgg tccgagatga ggtggttcca	240
gggaaggagg tgaggaatgg aaccccccagag ttcaggggcc gcctggcccc acttgcttct	300
tcccgtttcc tccatgacca ccaggctgag ctgcacatcc gggacgtgcg aggccatgac	360
gccagcatct acgtgtgcag agtggaggtg ctgggccttgcgtgcgggac agggaatggg	420
actcggctgg tggtgagaa agaacatcct cagctagggg atccggagcc caaatcttct	480
gacaaaactc acacatgccc accgtgccc gcacctaattcgagggatgc accgtcagtc	540
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca	600
tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac	660
ggcgtggagg tgcataatgc caagacaaag ccggggagg agcagtacaa cagcacgtac	720
cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag	780
tgcaaggctct ccaacaaagc cctcccaagcc cccatcgaga aaaccatctc caaagccaaa	840
gggcagcccc gagagccaca ggtgtacacc ctgccccat cccggatga gctgaccaag	900
aaccaggtaa gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cggcgtggag	960
tgggagagca atggcagcc ggagaacaac tacaagacca cgcctccgt gctggactcc	1020
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg	1080
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc	1140
ctctccctgt ctccggtaa atga	1164

<210> 25
 <211> 854
 <212> DNA
 <213> homo sapiens

<300>
 <308> NCBI/AJ225109
 <309> 1999-03-15
 <313> (1)..(854)

<400> 25 atggcctggc gagccctaca cccactgcta ctgctgctgc tgctgttccc aggctctcag	60
gcacaatcca aggctcaggtaacttcaaagt gtggcagggc agacgctaac cgtgagatgc	120
cagtacccgc ccacgggcag tctctacgag aagaaaggct ggtgttaagga ggcttcagca	180
tttgtgtca tcaggtagt caccagctcc aagcccagga cgatggcttgc gacctctcga	240
ttcacaatct gggacgaccc tgatgctggc ttcttcactg tcaccatgac tgatctgaga	300
gaggaagact caggacatta ctgggtttaga atctaccgccc tttctgacaa ctctgtctct	360
aagtccgtca gattctatct ggtggtatct ccagcctctg cctccacaca gacccctgg	420
actccccgcg acctggtctc ttcacagacc cagacccaga gctgtgtgcc tcccactgca	480
ggagccagac aagccctga gtctccatct accatccctg tcccttcaca gccacagaac	540
tccacgctcc gcccggcccc tgcagcccccc attggccctgg tgcctgtgtt ctgtggactc	600
ctcgttagcca agagcctggt gctgtcagcc ctgctcgtct ggtgggggaa catatggtgg	660

aaaaccgtga tggagctcag gagcctggat accaaaaaag ccacctgccca ccttcaacag	720
gtcacggacc ttccctggac ctcagttcc tcacctgttag agagagaaaat attatatcac	780
actgttgc aaactaagat aagcgatgat gatgatgaac acactttgtg aataataaaa	840
ttatctgaat gttt	854

<210> 26
 <211> 1320
 <212> DNA
 <213> artificial

<220>
 <223> DNA encoding conjugate of leader peptide, DS and DL domains of Nkp44 with Fc domain (SEQ ID NO:15)

aagcttgcgg ccaccatggg aatgcccattt gggctcttc aaccgtggc caccgttac	60
ctgctggggta tgctggtcgc ttccctgcctc ggacggctca gggtacccca atccaaggct	120
caggtacttc aaagtgtggc agggcagacg ctaaccgtga gatgccagta cccgcccacg	180
ggcagttctt acgagaagaa aggctggtgt aaggaggctt cagcacttgt gtgcattcagg	240
ttagtcacca gctccaagcc caggacggtg gcttggacccctt ctcgattcac aatctggac	300
gaccctgatg ctggcttctt cactgtcacc atgactgatc tgagagagga agactcagga	360
cattactggt gtagaatcta ccgccttctt gacaactctg tctctaagtc cgtcagattc	420
tatctggtgg tatctccagc ctctgcctcc acacagacccctt cctggactcc cccgcac	480
gtctcttccac agaccacac ccagagctgt gtgcctccca ctgcaggagc cagacaagcc	540
cctgagtctc catctaccat ccctgtccct tcacagccac agaactccac gctccgcct	600
ggccctgcag ccccgatcc ggagccaaa tcttctgaca aaactcacac atgcccac	660
tgcccagcac ctgaattcga ggggcacccctt tcagttttcc tcttcccccc aaaacccaa	720
gacaccctca ttagtctcccg gacccctgag gtcacatgcg tgggtggta cgtgagccac	780
gaagaccctg aggtcaagtt caactggta gttggacggcg tggaggtgca taatgccaag	840
acaaagccgc gggaggagca gtacaacacg acgtaccgtg tggtcagcgt cctcaccgtc	900
ctgcaccagg actggctgaa tggcaaggag tacaagtgcg aggtctccaa caaaccctc	960
ccagcccccac tcgagaaaac catctccaa gccaaggac agcccccaga gcccacagggt	1020
tacaccctgc ccccatcccg ggatgagctg accaagaacc aggtcagcct gacccgt	1080
gtcaaaggct tctatcccg cgacatgcc gttggatggg agagcaatgg gcagccggag	1140
aacaactaca agaccacgac tccccgtctg gactccgacg gctccttctt cctctacagc	1200
aagctcaccg tggacaagag caggtggcag cagggaaacg tcttctcatg ctccgtatg	1260
catgaggctc tgcacaacca ctacacgcag aagacccctt ccctgtctcc gggtaatga	1320

<210> 27
 <211> 996
 <212> DNA

<213> artificial

<220>

<223> DNA encoding conjugate of CD5 leader peptide and DS domain of Nkp44 with Fc domain (SEQ ID NO:16)

<400> 27

aagcttgcgg ccaccatggg aatgcccattt gggctctgc aaccgctggc cacccatgtac	60
ctgctggggta tgctggtcgc ttccctgcctc ggacggctca gggtaccctc tccagcctct	120
gcctccacac agaccccttg gactccccgc gacctggtctt cttcacagac ccagacccag	180
agctgtgtgc ctcccaactgc aggagccaga caagccccctg agtctccatc taccatccct	240
gtcccttcac agccacagaa ctccacgctc cgccctggcc ctgcagcccc ggatccggag	300
cccaaattttt ctgacaaaac tcacacatgc ccaccgtgcc cagcacctga attcgagggt	360
gcaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgtat ctccggacc	420
cctgaggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac	480
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac	540
aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	600
aaggagtaca agtgcacaggat ctccaaacaaa gcccctccag ccccccatttga gaaaaccatc	660
tccaaagcca aaggggcagcc ccgagagcca caggtgtaca ccctgcccccc atccggat	720
gagctgacca agaaccaggat cagcctgacc tgcctggta aaggcttcta tcccaagcgac	780
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cacgcctccc	840
tgctggact ccgacggctc ctttttcctc tacagcaagc tcaccgtgga caagagcagg	900
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	960
acgcagaaga gcctctccct gtctccgggt aaatga	996

<210> 28

<211> 1146

<212> DNA

<213> artificial

<220>

<223> DNA encoding conjugate of CD5 leader peptide and DL domain of Nkp44 with Fc domain (SEQ ID NO:17)

<400> 28

aagcttgcgg ccaccatggg aatgcccattt gggctctgc aaccgctggc cacccatgtac	60
ctgctggggta tgctggtcgc ttccctgcctc ggacggctca gggtaccctc atccaaaggct	120
caggtacttc aaagtgtggc agggcagacg ctaaccgtga gatgccagta cccgccccacg	180
ggcagtctct acgagaagaa aggctgggt aaggaggctt cagcacttgt gtgcattcagg	240
ttagtacca gctccaagcc caggacggtg gcttggaccc ttcgattcac aatctgggac	300
gaccctgatg ctggcttctt cactgtcacc atgactgatc tgagagagga agactcagga	360
cattactggt gtagaatcta ccgccttctt gacaactctg tctctaagtc cgtcagattc	420
tatctggtgg tatctccagc ggatccggag cccaaattttt ctgacaaaac tcacacatgc	480

ccaccgtgcc cagcacctga attcgaggg gcaccgtcag tttccctctt ccccccaaaa	540
cccaaggaca ccctcatgat ctcccggacc cctgaggtca catgcgtgg ggtggacgtg	600
agccacgaag accctgaggt caagttcaac tggtacgtgg acggcgtgga ggtgcataat	660
gccaagacaa agccgcggga ggagcagtac aacagcacgt accgtgtggt cagcgtcctc	720
accgtcctgc accaggactg gctgaatggc aaggagtaca agtgcaggt ctccaacaaa	780
gccctcccag cccccatcga gaaaaccatc tccaaagcca aagggcagcc ccgagagcca	840
caggtgtaca ccctgcccc atcccggat gagctgacca agaaccaggt cagcctgacc	900
tgccctggta aaggcttcta tcccagcgcac atcggcgtgg agtgggagag caatggcag	960
ccggagaaca actacaagac cacgcctccc gtgctggact ccgacggctc cttttccctc	1020
tacagcaagc tcaccgtgga caagagcagg tggcagcagg ggaacgttct ctcatgctcc	1080
gtgatgcatg aggctctgca caaccactac acgcagaaga gccttcctc gtctccgggt	1140
aaatga	1146

<210> 29
 <211> 159
 <212> PRT
 <213> Artificial

<220>
 <223> conjugate of CD5 leader and mutated Nkp46 (Q4) with Fc of Ig

<400> 29

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
 20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
 35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
 50 55 60

Leu Leu Leu Gln Glu Gly Gln Ser Ser Gln Val Gln Gln Gly Tyr Gly
 65 70 75 80

Lys Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
 85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
 100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
 115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
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130

135

140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp
145 150 155

<210> 30
<211> 159
<212> PRT
<213> Artificial

<220> conjugate of CD5 leader and mutated NKp46 (Q4T1) with Fc of Ig

<400> 30

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
50 55 60

Leu Leu Leu Gln Glu Gly Gln Ser Ser Gln Val Gln Gln Gly Tyr Gly
65 70 75 80

Thr Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
130 135 140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp
145 150 155